con terra FME Cloud Managed Service Support Plan

con terra is a Premier Managed Service Provider (MSP) Partner of Safe Software Inc. The con terra FME Cloud Managed Service Support Plan explicitly defines what FME Cloud customers can expect from con terra when they run services on FME Cloud from Safe Software.

All con terra FME Cloud Managed Service Support Plan customers have access to con terra Standard Support for FME Cloud as referred at https://www.conterra.de/support. con terra FME Cloud Managed Service Support Plan extends the Standard Support with MSP Partner Support services for the Management and Monitoring of the customers FME Cloud instances as stated in Safe Software's FME Cloud Support Policy at https://www.safe.com/legal/terms-and-conditions/fme-cloud-support-policy/.

1 Support Channels

Support channels from con terra are available by telephone or by e-mail. These can be reached from 9am to 4pm Central European Summer Time (CEST) / Central European Time (CET), Monday to Friday, except holidays in North Rhine-Westphalia, Germany.

2 Scope of Support

2.1 Helpdesk Support

FME Cloud Helpdesk support requests cover development and production issues on FME Cloud, especially the FME Server running on the FME Cloud instance. Helpdesk support is limited to:

- Troubleshooting operational or systemic problems on both the FME Cloud tier and FME Server instances.
- Troubleshooting security concerns on both the FME Cloud tier and FME Server instances.
- Troubleshooting access Issues to either the FME Cloud tier or FME Server instances.
- Proactive investigation into product regressions, deficiencies and security threats.

Helpdesk Support does not include:

- Proof of concepts
- Advice on leveraging third-party services that complement typical FME Cloud deployments
- Performing system administration tasks

2.2 Advanced Support

Within the FME Cloud Managed Service Support Plan con terra offers the following advanced support services:

- Architectural Review - Review of your current architecture and advice on how to migrate to the cloud to take advantage of the many opportunities it presents.
- FME Server version upgrades – Application of FME Server version upgrades once a year. This applies for release version upgrades only.
- Disaster recovery plan – Application of FME Cloud instance backups in case of disaster.

3 FME Cloud Shared Responsibility Model

FME Cloud is a Platform as a Service (PaaS). Two components comprise FME Cloud. The first component is the dashboard/API, herein referred to as the FME Cloud tier. This is a multi-tenant application where FME Cloud customers sign up, launch/manage FME Server instances, and conduct billing and account management.
The second component is the FME Server instances. These are where FME Cloud customers publish their workspaces and associated data. Each FME Server instance is a self-contained environment, isolated from other instances, and includes compute, storage, and database services.
Monitoring, securing and maintaining the FME Cloud tier is the sole responsibility of Safe Software. You acknowledge that the FME Cloud tier is provided by Safe Software Inc. and is beyond the reasonable control of con terra.
For the FME Server instances, to ensure a high level of uptime, both con terra and Safe Software are responsible for supporting the instance—a shared responsibility model.

3.1 Proactive Monitoring Of The FME Cloud Tier

The FME Cloud tier is monitored 24x7 by comprehensive automated systems. In the event of any issue affecting the health and operation of the infrastructure, core systems, or tools, Safe Software's dedicated operations team is notified and will respond to diagnose and correct any issues. This 24x7 monitoring of the FME Cloud tier benefits all FME Cloud users.

3.2 FME Server Instances

Delivering a high level of uptime for the customer's FME Server deployment on FME Cloud is slightly different to on-premises data

centers. When the FME Cloud customer moves their FME Server deployment up to the cloud, the responsibility of ensuring a high level of uptime for their instance is split between con terra and Safe Software. Safe Software is responsible for monitoring and maintaining the operating system down to the hardware powering the instance, and con terra is responsible for monitoring and maintaining the FME Server application (see Figure 1).

3.3 Safe Software Support Responsibilities

Safe Software is responsible for monitoring and responding if there is an issue with the operating system, hardware or network. Safe Software monitor the health and operation of all these components and will be alerted immediately if there is an issue.

3.4 con terra MSP Partner Support Responsibilities

FME Cloud is a Platform as a Service (PaaS), allowing the FME Cloud customer to provision an instance with FME Server installed in minutes instead of weeks. On provisioning the instance, Safe Software and con terra have no ability to access the instance through the FME Server web interface or APIs. This means it is impossible for Safe Software and con terra to support the FME Server application uptime as we have no access, and thus insight, into FME Server workloads being run. con terra is responsible for supporting the FME Cloud customer on this application tier.

3.4.1 Monitoring and Automated Alerts

con terra manages this application tier using a suite of tools provided by FME Cloud.

Disk Monitoring: If an FME Server instance runs out of disk space, then it can cause a critical outage as FME Server requires free disk to function. con terra will monitor disk usage and define alerts that will send a notification when the amount of remaining disk goes below a certain value.

Memory Monitoring: If an FME Server instance is consistently running out of memory, then it can potentially cause a severe degradation of service. con terra will monitor memory and define alerts that will send a notification when the memory usage is above a certain value for a period of time.

Web Server Responsiveness: If an FME Server instance is overloaded, or experiences connectivity issues, one of the best indicators of a potential critical outage is whether the FME Server web server is responsive. con terra will define alerts on the server response time and there is a special alert which triggers when the server is non-responsive. Notifications can then be configured to ensure the correct people are instantly made aware of the issue.

FME Server Load: If an instance is constantly overloaded, then it can cause a degradation in service as all services (engines, web server, database, etc.) share the same compute. For example, if an FME Engine hogs all of the CPU, then it can cause the database and web server to crash. If the load is consistently high, then the instance type may need to be upgraded. con terra will monitor server load and define alerts that will send a notification when the load is above a certain value for a period of time.

3.4.2 Security Update Management

Ensuring the FME Cloud instance is secure is critical to ensuring a high level of uptime. If the operating system is not patched with the latest fixes, then the instance could be vulnerable to attack. con terra will set the automated security patching provided by FME Cloud which allows to ensure the instance is patched with a few clicks in the dashboard.

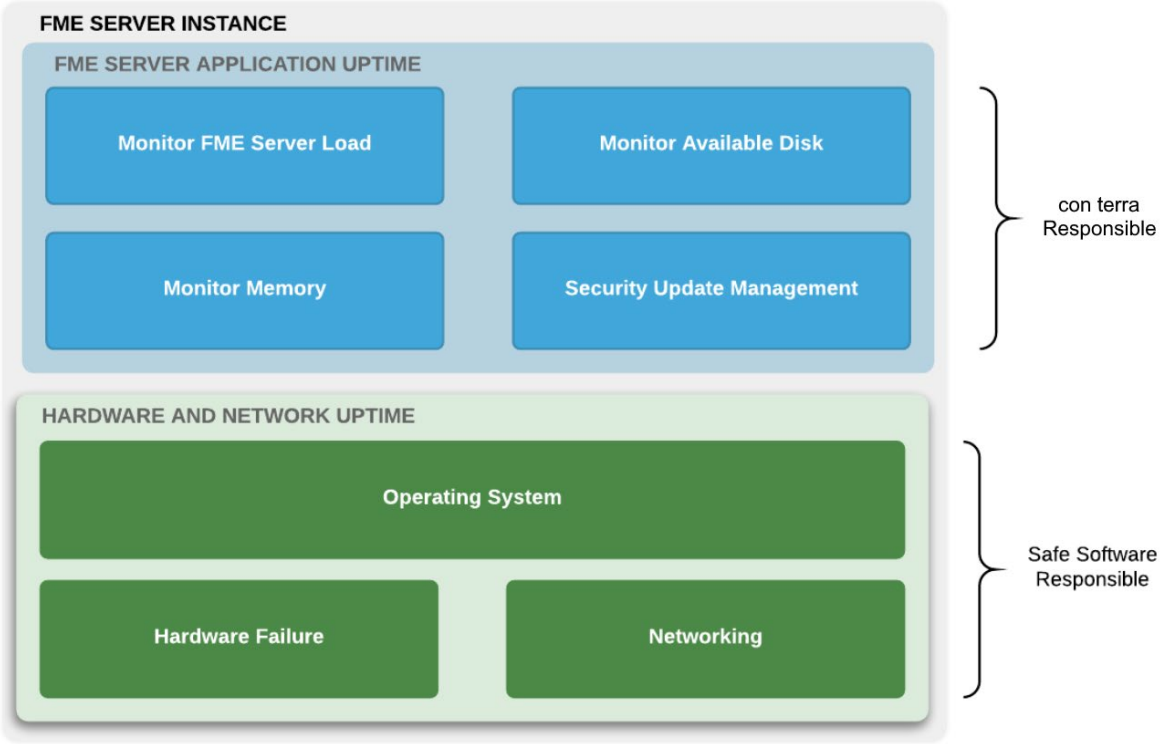

Figure 1: FME Cloud Shared Support Responsibility Model